

ABSTRACT OF THE DISCLOSURE

17. Within each of a microfluidic mixer apparatus and a microfluidic reactor apparatus, as well as respective methods for operation thereof, there is provided a substrate having formed therein an aperture. Within the microfluidic mixer apparatus and its method of operation there is introduced into the aperture at least a pair of reagents through a pair of channels which terminate obliquely at the aperture, such as to provide a swirling mixing of the pair of reagents. Within the microfluidic reactor apparatus, the aperture comprises a first end portion contiguous with a middle portion in turn contiguous with a second end portion, where the middle portion, but not the first end portion or the second end portion, has at least one baffle intruding therein.